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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,319	06/30/2005	Dan Tudor Vuza	P28069	8119
7055 7590 07/18/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER JIANG, YONG HANG	
			ART UNIT 2612	PAPER NUMBER
			NOTIFICATION DATE 07/18/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No. 10/541,319	Applicant(s) VUZA, DAN TUDOR	
	Examiner Yong Hang Jiang	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-24, 26, 32 and 36-46 is/are rejected.
- 7) ☒ Claim(s) 25, 27-31 and 33-35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/30/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 45 is objected to because of the following informalities: at the end of claim 45 a period is missing. Appropriate correction is required.
2. Claim 46 is objected to because of the following informalities: the word "cyclesof" on line 5 should be --cycles of --. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 42 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 42, the limitation "the antennas" in line 3 render the claim indefinite; there is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:  
  
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
6. Claims 36-38 are rejected under 35 U.S.C. 101 because the claims are directed to neither a "method" nor "machine", but rather overlaps two different statutory classes of invention set forth in 35 U.S.C. 101.

Regarding claim 36, the citation "adapted to implement the method according to claim 21" rendered the claim non-statutory as claim 36 is directed toward a machine claim from the citation "a synchronization circuit", therefore claim 36 is considered non-statutory as it overlaps two different statutory classes.

Claims 37 and 38 depend on claim 36; therefore they suffer the same deficiency.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 21-23, 32, 36-38, and 45-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Krishna et al. (US 2006/0022800).

Regarding claim 21, Krishna et al. disclose a method for coordinated management of a plurality of contact less radio-frequency readers of chips incorporating

electronic microcircuits (via synchronized readers 10.1-10.q, See paragraphs 169 and Figure 11), the method comprising:

transmitting, in a first time interval (See Figure 11), transmit operations composed of command instructions (via message packets) from each of the plurality of readers (via each of a plurality of readers 10.1-10.q) to the electronic microcircuits of the chips (via tags) associated with each respective reader; and

receiving, in a second time interval (See Figure 11), receive operations composed of responses (via tag data) from the electronic microcircuits of the chips (tags) associated with each respective reader, wherein the first and second time intervals do not overlap (See paragraphs 71 and 169; and Figure 11).

Regarding claim 22, Krishna et al. disclose each of the plurality of readers are active readers (via readers that read information from tags), whereby the active readers are synchronized to group their respective transmitting and receiving into distinct time intervals (via synchronized readers, See paragraph 169 and Figure 11).

Regarding claim 23, Krishna et al. disclose the transmit operations are grouped to finish at a substantially same time (via synchronized readers, See paragraph 169 and Figure 11).

Regarding claim 32, Krishna et al. disclose clock signals of each reader of the plurality of readers are synchronized to a same time base (via time slots for the transmit and receive operations of the synchronized readers, See paragraph 169 and Figure 11).

Regarding claim 36, Krishna et al. disclose a synchronization circuit (via mid-level controller/processor 102.1-102.n) for a plurality of contact less radio-frequency

readers of chips (readers 10.1-10.q) incorporating electronic microcircuits, the synchronization circuit comprising:

a microprocessor-based processing unit (via a mid-level processing component effectively transforms the operation of the RFID readers from an aggregated but essentially autonomous operating mode to a highly coordinated operating mode, in which the respective readers effectively function as elements of an RFID reader array, see paragraph 56) structured and arranged to effect the synchronization; and

an interface circuit (via processor 102.1-102.n in communication with the readers 10.11-10.q and the host computers 14.1-14.r) structured and arranged to be readily connectable to each of the readers of said plurality of readers (See paragraph 56 and 57).

Regarding claim 37, Krishna et al. disclose the interface circuit includes a device (via controller/processor 102.1-102.n in communication with the readers 10.1a-10.q and the host computers 14.1-14.r) for de-multiplexing data transmission lines from the readers (See paragraph 57 and 58).

Regarding claim 38, Krishna et al. disclose the interface circuit includes a device (via a time synchronization sub-component within the reader configuration component 460 is operative to synchronize the mid-level processor(s) in the system, See Paragraph 127 and Figure 4b) for delivering to the readers clock signals synchronized to a time base (real -time clock) of the processing unit.

Regarding claim 45, Krishna et al. disclose a system (via system 100, See paragraph 57) of contact less radio-frequency read/write readers of chips incorporating electronic microcircuits, comprising:

a plurality of readers (via RFID readers 10.1-10.q, See paragraph 57);

a synchronization circuit (via a mid-level processing component effectively transforms the operation of the RFID readers from an aggregated but essentially autonomous operating mode to a highly coordinated operating mode, in which the respective readers effectively function as elements of an RFID reader array, see paragraphs 56 and 57) being coupled to the plurality of readers and adapted to implement a synchronization of transmit/receive cycles (See paragraph 169 and Figure 11) of the plurality of readers; and

a microprocessor based central control unit (via controller/processor 102.1-102.n, See paragraph 57) structured and arranged to manage the synchronization circuit.

Regarding claim 46, Krishna et al. disclose a system of contact less radio-frequency reader/write reader of chips (via system 100, See paragraph 57 ) incorporating electronic microcircuits, comprising: a plurality of readers (via RFID readers 10.1-10.q, See paragraph 57); and a synchronization circuit (via a mid-level processing component effectively transforms the operation of the RFID readers from an aggregated but essentially autonomous operating mode to a highly coordinated operating mode, in which the respective readers effectively function as elements of an RFID reader array, see paragraphs 56 and 57) structured and arranged to synchronize transmit/receive cycles of the readers (See figure 11 and paragraph 169) and including

a clock signal switching device (via controller 102.1, See paragraph 57) for switching an internal time base to a time base of a central processing unit.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 24, 26, and 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishna et al. (US 2006/0022800).

Regarding claims 24 and 26, Krishna et al. disclose the method further includes sending the active readers instructions to execute the transmit operations for sending the command instructions of transmit/receive cycles spread over time (via coordinating the start of transmissions of interrogators original scheduled at nearly the same times are delayed, the delay is established by specifying a time window, See paragraphs 168 and 169); thus, it is merely a design choice to collect durations of the transmit operations for sending the command instructions of first transmit/receive cycles of the active readers; and in order of decreasing duration of the transmit operations, beginning with the reader assigned the command instruction of the transmit/receive cycle having a greatest duration, and a delay between executing one instruction and the next being equal to a difference between the durations of the transmit operations of the transmit/receive cycle command instructions to be transmitted by the corresponding two readers, up to executing the instruction associated with the shortest duration of the



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transmit operations; and the durations comprise multiples of a period of a carrier used by the readers.

Regarding claim 39, Krishna et al. disclose a contact less radio frequency reader (via reader 10.1, See paragraph 57) of chips incorporating electronic microcircuits, comprising:

a transmitter and receiver (via RF receiver and Interrogator, See paragraph 57) for respectively sending and receiving transmit/receive cycles for the electronic microcircuits.

Krishna et al. further disclose a synchronization unit (via a mid-level processing component effectively transforms the operation of the RFID readers from an aggregated but essentially autonomous operating mode to a highly coordinated operating mode, in which the respective readers effectively function as elements of an RFID reader array, see paragraph 56) structured and arranged to synchronize the transmit/receive cycles (See figure 11 and paragraph 169) with transmit/receive cycles of other readers associated with other electronic microcircuits.

But Krishna et al. fail to disclose the synchronization unit is part of the contact less radio frequency reader.

However, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the reader of Krishna et al. to include a synchronization unit as part of the reader in order to have a reader with an internal synchronization unit to synchronize its internal clock faster.

Regarding claim 40, Krishna et al. disclose the synchronization unit comprises hardware and software to effect the synchronization (via system architecture 100 may be embodied in whole or in part using hardware or software or some combination thereof, See paragraph 57).

Regarding claim 41, Krishna et al. disclose the synchronization unit accesses hardware and software to effect the synchronization (via system architecture 100 may be embodied in whole or in part using hardware or software or some combination thereof or any other suitable types of hardware and/or software, See paragraph 57).

Regarding claim 42, Krishna et al. disclose the reader further comprising a device (via reader coordination component 464, See paragraph 131 and Figure 4c) to control connection of power to and/or disconnection of power from the antenna.

Regarding claim 43, Krishna et al. disclose the reader further comprising a device (via mid-level processor 102, See paragraph 81) employing an accelerated collision management process.

Regarding claim 44, Krishna et al. disclose the synchronization unit comprises a processing unit, (via mid-level processor 102), and the reader further comprises a clock signal switching device (via controller 102.1, See paragraph 57) for switching from an internal time base to a time base of the processing unit.

***Allowable Subject Matter***

**11.** Claims 25, 27-31, and 33-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bowers et al. (US 5,883,582)

Zai et al. (US 2005/0088284)

Gallagher, III et al. (US 2004/0140884)

Fischer et al. (US 2006/0022815)

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Hang Jiang whose telephone number is 571-270-3024. The examiner can normally be reached on M-F 7:30 am to 5:30 pm alternate Fridays off.

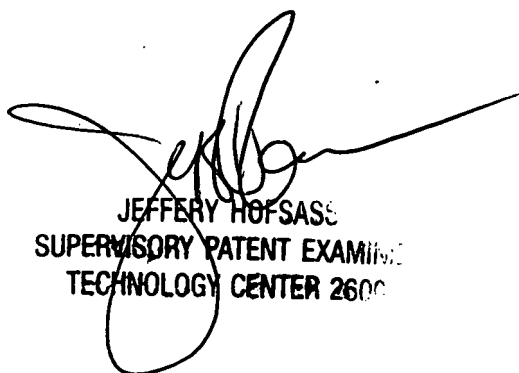
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YHJ



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